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PATENT AND TRADEMARK OFFICE

**SUBMISSION OF FORMAL DRAWINGS**

Docket Number:  
395/35

Batch No.  
G78 #23

Application Number  
09/510,562

Filing Date  
02/22/00

Examiner  
D. Saunders

Art Unit  
1644

Title

METHOD FOR SCREENING FOR PROTEIN  
INHIBITORS AND ACTIVATORS

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Assistant Commissioner  
for Patents  
Washington D.C. 20231

SIR:

Applicant refers to the Notice of Draftsperson's Patent Drawing Review attached to Paper Number 11 in the above-referenced patent application and submits herewith twenty two (22) sheets of formal drawings to be substituted for the drawings which were previously submitted in the application. Of the 22 sheets, five (5) sheets are photographs.

The Commissioner is hereby authorized to charge any fees which may be required in connection with this communication to Deposit Account No. 11-0600.

Dated:

June 6, 2001

By:

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FIG. 1.A. - 1

10      20      30      40      50      60

\* \* \*

GAA TTC CGC CTC TCC GGG CTT ACA GCC CGC GGT CCC GCC CCG GGG CCG CCA CCT CTC

70      80      90      100      110      120

\* \* \* \*

GGG GCT CCC CCC AGT CCC CGC GCG CGC AAG ATG GCT GAC CCG GCT GCG GGG CCG CCG CCG CCG

Mat 11:2 Yea Bro Mat 11:3 Cdw Bro Bro Bro

130      140      150      160      170      180

\* \* \* \* \*

AGC GAG GGC GAG GAG AGC ACG GTG CGC TTC GCC CGC AAA GGG CCC CTC CGG CAG AAG AAC

Ser Glu Gly Glu Glu Ser Thr Val Arg Phe Ala Arg Lys Gly Pro Leu Arg Gln Lys Asn

FIG. 1.A. - 2

	190	200	210	220	230	240
*	*	*	*	*	*	*
GTG CAC GAG GTG AAG AAC CAC AAA TTC ACC GCC CGC TTC TTC AAG CAG CCC ACC TTC TGC						
Val His Glu Val Lys Asn His Lys Phe Thr Ala Arg Phe Phe Lys Gln Pro Thr Phe Cys						
	250	260	270	280	290	300
*	*	*	*	*	*	*
AGC CAC TGC ACC GAC TTC ATT TGG GGC TTC GGG AAG CAG GGA TTC CAG TGT CAA GTC TGC						
Ser His Cys Thr Asp Phe Ile Trp Gly Phe Gly Lys Gln Gly Phe Gln Cys Gln Val Cys						
	310	320	330	340	350	360
*	*	*	*	*	*	*
TGC TTT GTR GTA CAC AAG CGC TGC CAT GAA TTC GTC ACC TRC TCC TGC CCT GGT GCA GAC						
Cys Phe Val Val His Lys Arg Cys His Glu Phe Val Thr Phe Ser Cys Pro Gly Ala Asp						

FIG. 1.A. - 3

	370	380	390	400	410	420
*	*	*	*	*	*	*
AAG	GCC	CCG	GCC	TCT	GAT	GAC
CAC	CCA	CGG	AGC	AAA	CAC	AAG
TTC	AAC	AGG	AAA	CAC	AAG	TTT
ATC	CAC	ACC	TAC	TAC	CAC	TCC
Lys	Gly	Pro	Ala	Ser	Asp	Asp
Asp	Pro	Arg	Ser	Lys	His	Phe
Pro	Arg	Ser	Lys	Ile	His	Thr
Ser						
430	440	450	460	470	480	
*	*	*	*	*	*	
AGC	CCT	ACC	TTC	TGT	GAC	CAC
TCA	TGA	TCA	TCA	TGT	TCA	CTG
CTG	CTG	CTG	CTG	TAT	CTG	CTG
TAT	GGG	CTC	ATC	GGG	CTC	ATC
GGG	CTC	ATC	CAC	CTC	ATC	CAC
ATG						
Ser	Pro	Thr	Phe	Cys	Asp	His
Cys						
Gly						
Ser						
Leu						
Leu						
Tyr						
Gly						
Leu						
Ile						
His						
Gln						
Gly						
Met						
490	500	510	520	530	540	
*	*	*	*	*	*	
AAA	TGC	GAC	ACC	TGT	ATG	ATG
AAT	GTC	CAC	AAG	AAT	GTC	CAC
GTC	CGC	TGC	CGC	GTC	ATG	AAC
CCC	AGC	GTG	AGC	GTC	AAC	GTC
AGC	CTC	ATG	CTC	CCC	AGC	CTC
Lys	Cys	Asp	Thr	Cys	Met	Met
Cys						
Asp						
Thr						
Cys						
Met						
Met						
Asn						
Val						
His						
Lys						
Arg						
Cys						
Val						
Met						
Asn						
Val						
Pro						
Ser						
Leu						

FIG. 1.A. - 4

FIG. 1.A. - 5

	730	740	750	760	770	780
*	*	*	*	*	*	*
AAG ACC AAG ACT ATC AAA TGC TCC CTC AAC CCG GAG TGG AAC GAA ACC TTC AGA TTT CAG	Lys Thr Lys Thr Ile Lys Cys Ser Leu Asn Pro Glu Trp Asn Glu Thr Phe Arg Phe Gln					

FIG. 1.A. - 6

FIG. 1.A. - 7

1090	1100	1110	1120	1130	1140
*	*	*	*	*	*
AAT	GGC	AAC	AGG	GAC	CGG
ATG	AAA	CTG	ACC	GAT	TTT
AAC	TTC	CTG	ATG	GTG	CTG
GGG	AAA				
Asn	Gly	Asn	Arg	Asp	Arg
Met	Lys	Leu	Thr	Asp	Phe
Asn	Phe	Asn	Phe	Leu	Met
				Val	Leu
				Gly	Lys
1150	1160	1170	1180	1190	1200
*	*	*	*	*	*
GCC	AGC	TTT	GGC	AAG	GTC
CTC	TC	TC	TCA	GAG	CGG
AAG	GGT	ACA	GAT	GAA	CTC
GCA	TAT	TAT	GCC	GTG	
Gly	Ser	Phe	Gly	Lys	Val
				Arg	Met
				Gly	Ieu
				Thr	Ser
				Asp	Glu
				Glu	Leu
				Tyr	Tyr
				Ala	Val
1210	1220	1230	1240	1250	1260
*	*	*	*	*	*
AAG	ATC	CTG	AAG	AAA	GAT
GTG	GTG	ATC	CAA	GAT	GAC
GAT	GAT	CAA	GAT	GAT	GAT
GTG	GTG	ACA	GCA	GCA	GCA
GAG	GAG	ATG	ATG	ATG	ATG
GAG	GAG	GTG	GTG	GTG	GTG
Lys	Ile	Ieu	Lys	Lys	Asp
				Val	Val
				Ile	Gln
				Asp	Asp
				Asp	Asp
				Val	Val
				Glu	Cys
				Thr	Thr
				Met	Met
				Val	Val
				Glu	Glu

FIG. 1.A. - 8

1270	1280	1290	1300	1310	1320
*	*	*	*	*	*
AAG AGG GTG CTG GCC CTG CCT GGG AAG CCC CCA TTC CTG ACT CAG CTC CAT TCC TGC TTC					
Lys Arg Val Leu Ala Leu Pro Pro Gly Lys Pro Pro Phe Leu Thr Gln Leu His Ser Cys Phe					
1330	1340	1350	1360	1370	1380
*	*	*	*	*	*
CAG ACC ATG GAC CGC CTC TAC TTT GTG ATG GAG TAT GTG AAC GGG GGC GAC CTC ATG TAC					
Gln Thr Met Asp Arg Leu Tyr Phe Val Met Glu Tyr Val Asn Gly Gly Asp Leu Met Tyr					
1390	1400	1410	1420	1430	1440
*	*	*	*	*	*
CAC ATC CAA CAA GTT GGC CGT TTC AAG GAG CCC CAT GCT GTA TTT TAC GCT GCA GAG ATT					
His Ile Gln Gln Val Gly Arg Phe Lys Glu Pro His Ala Val Phe Tyr Ala Ala Glu Ile					

FIG. 1.A. - 9

			1450	1460	1470	1480	1490	1500											
*	*	*	*	*	*	*	*	*											
GCC	ATC	GGT	CTT	TTC	TTC	TTG	CAG	AGC	AAG	GGC	ATC	ATT	TAC	CGT	GAC	CTG	AAA	CTT	GAC
Ala	Ile	Gly	Leu	Phe	Phe	Leu	Gln	Ser	Lys	Gly	Ile	Ile	Tyr	Arg	Asp	Leu	Lys	Leu	Asp
			1510	1520	1530	1540	1550	1560											
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AAC	GTG	ATG	CTG	GAT	TCC	GAG	GGG	CAC	ATC	AAA	ATC	GCT	GAC	TTT	GGC	ATG	TGT	AAA	GAG
Asn	Val	Met	Leu	Asp	Ser	Glu	Gly	His	Ile	Lys	Ile	Asp	Phe	Gly	Met	Cys	Lys	Glu	
			1570	1580	1590	1600	1610	1620											
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AAT	ATC	TGG	GAT	GGG	GTG	ACA	ACC	AAG	ACA	TTC	TGT	GGC	ACT	CCA	GAC	TAC	ATT	GCC	CCA
Asn	Ile	Trp	Asp	Gly	Val	Thr	Thr	Lys	Thr	Phe	Cys	Gly	Thr	Pro	Asp	Tyr	Ile	Ala	Pro

FIG. 1.A. - 10

1630            1640            1650            1660            1670            1680  
\*                \*                \*                \*                \*                \*  
GAG ATC ATT GCT TAT CAG CCC TAC GGA AAG TCT GTG GAC TGG TGG GCG TTT GGA GTC CTG  
Glu Ile Ile Ala Tyr Gln Pro Tyr Gly Lys Ser Val Asp Trp Trp Ala Phe Gly Val Leu  
  
1690            1700            1710            1720            1730            1740  
\*                \*                \*                \*                \*                \*  
CTG TAT GAA ATG TTG GCT GCC CAG GCA CCT TTT GAA GGG GAG GAT GAG GAT GAA CTC TTC  
Leu Tyr Glu Met Leu Ala Gly Gln Ala Pro Phe Glu Gly Glu Asp Glu Asp Glu Leu Phe  
  
1750            1760            1770            1780            1790            1800  
\*                \*                \*                \*                \*                \*  
CAG TCA ATC ATG GAG CAC AAC GTG GCG TAT CCC AAG TCC ATG TCT AAG GAA GCT GTG GCA  
Gln Ser Ile Met Glu His Asn Val Ala Tyr Pro Lys Ser Met Ser Lys Glu Ala Val Ala

FIG. 1.A. - 11

FIG. 1.A. - 12

	1990	2000	2010	2020	2030	2040
*	*	*	*	*	*	*
GAC AAA GAG TTC ACC AGG CAG CCT GTG GAA CTG ACT CCC ACT GAC AAA CTC TTC ATC ATG						
Asp Lys Glu Phe Thr Arg Gln Pro Val Glu Leu Thr Pro Thr Asp Lys Leu Phe Ile Met						
2050	2060	2070	2080	2090	2100	
*	*	*	*	*	*	
AAC TTG GAC CAA AAT GAA TTT GCT GGC TTC TCG TAT ACT AAC CCA GAG TTT GTC ATT AAT						
Asn Leu Asp Gln Asn Glu Phe Ala Gly Phe Ser Tyr Thr Asn Pro Glu Phe Val Ile Asn						
2110	2120	2130	2140	2150	2160	
*	*	*	*	*	*	
GTG TAG GTG AAT GCA GAT TCC ATC GCT GAG CCT GTG TGT AAG GCT GCA GCG TGA ATG TCT						
Val ---						

FIG. A.1. - 13

2170            2180            2190            2200            2210            2220

\* \* \*

ATT ATC AAT TCC AGT CTT CCA GGA TTC ATG GTG CCT CTG TTG GCA TCC GTC ATG TGG AGA

2230      2240      2250      2260      2270      2280

\* \* \* \*

GCT TGT CTT AGA GGG CTT TTC TTT GTA TGT ATA GCT TGC TAG TTT GTT TTC TAC ATT TCA

2290      2300      2310      2320      2330      2340

\* \* \* \*

AAA TGT TTA GTT TAG AAT AAG TGC ATT GCC CAC TGA TAG AGG TAC AAT TTT CCA GAC TTC

FIG. 1.A. - 14

2350      2360      2370      2380      2390      2400

\* \* \* \* \*

CAG AAA CTC ATC CAA TGA ACC AAC AGT GTC AAA ACT TAA CTG TGT CCG ATA CCA AAA TGC

2410      2420      2430      2440      2450      2460

\* \* \* \*

TTC AGT ATT TGT AAT TTT TAA AGT CAG ATG CTG ATG TTC CTG GTC AAA GTT TTT ACA GTT

2470      2480      2490      2500      2510      2520

\* \* \* \*

ACT CTC GAA TAT CTC CTT TGA ATG CTA CCT AAG CAT GAC CGG TAT TTT TAA AAG TTG TGAG

FIG. 1.A. - 15

2530            2540            2550            2560            2570            2580

\*                \*                \*                \*                \*                \*

GTA AGC TTT GCA GTT ACT GTG AAC TCT TGT CTC TTG GAG GAA CTT TTT GTT TAA GAA TTG

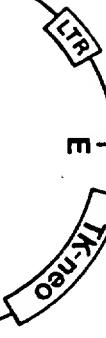
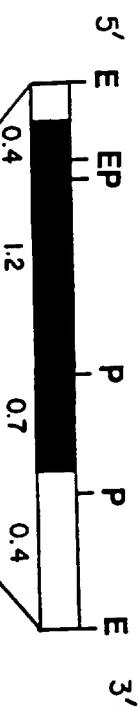
2590            2600

\*                \*

GTA TGA TTA AAC TGA ATT C\*

*FIG. I.*

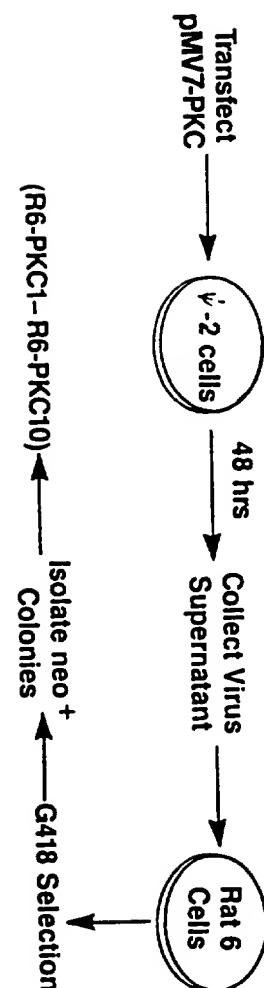
B.



pMV7 - PKC

*FIG. I.*

C.



**FIG. 2**

| R6-C1 | R6-C2 | R6-C3 | R6-PKC1 | R6-PKC2 | R6-PKC3 | R6-PKC4 | R6-PKC5 | R6-PKC6 |

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

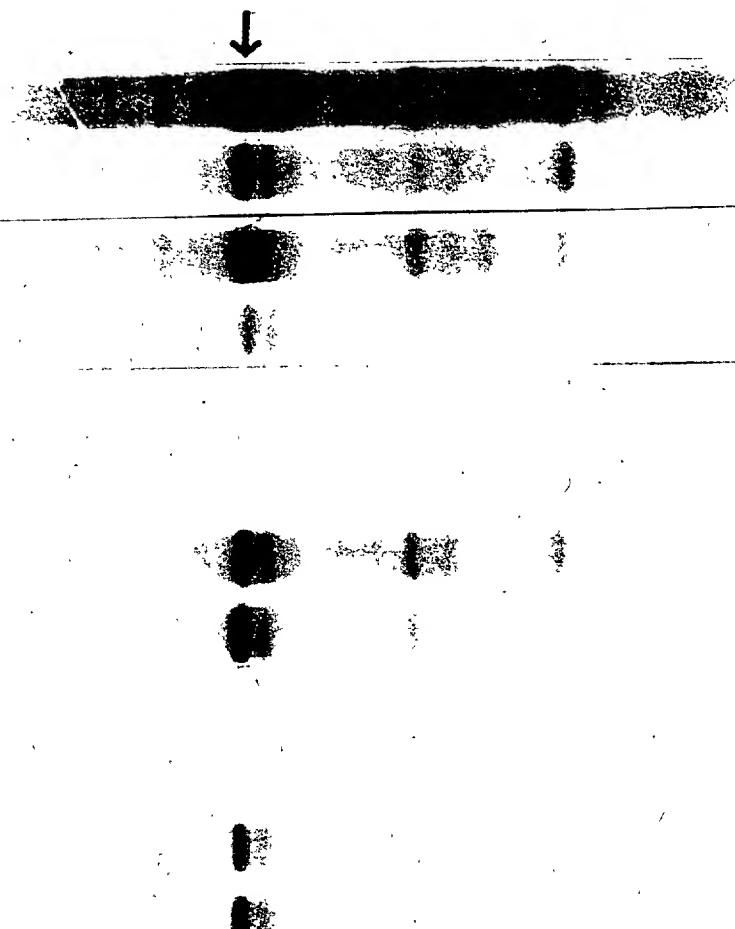
200—

97—



68—

43—



**FIG. 3**

R6-C1

R6-PKC1

R6-PKC2

R6-PKC3

R6-PKC4

R6-PKC5

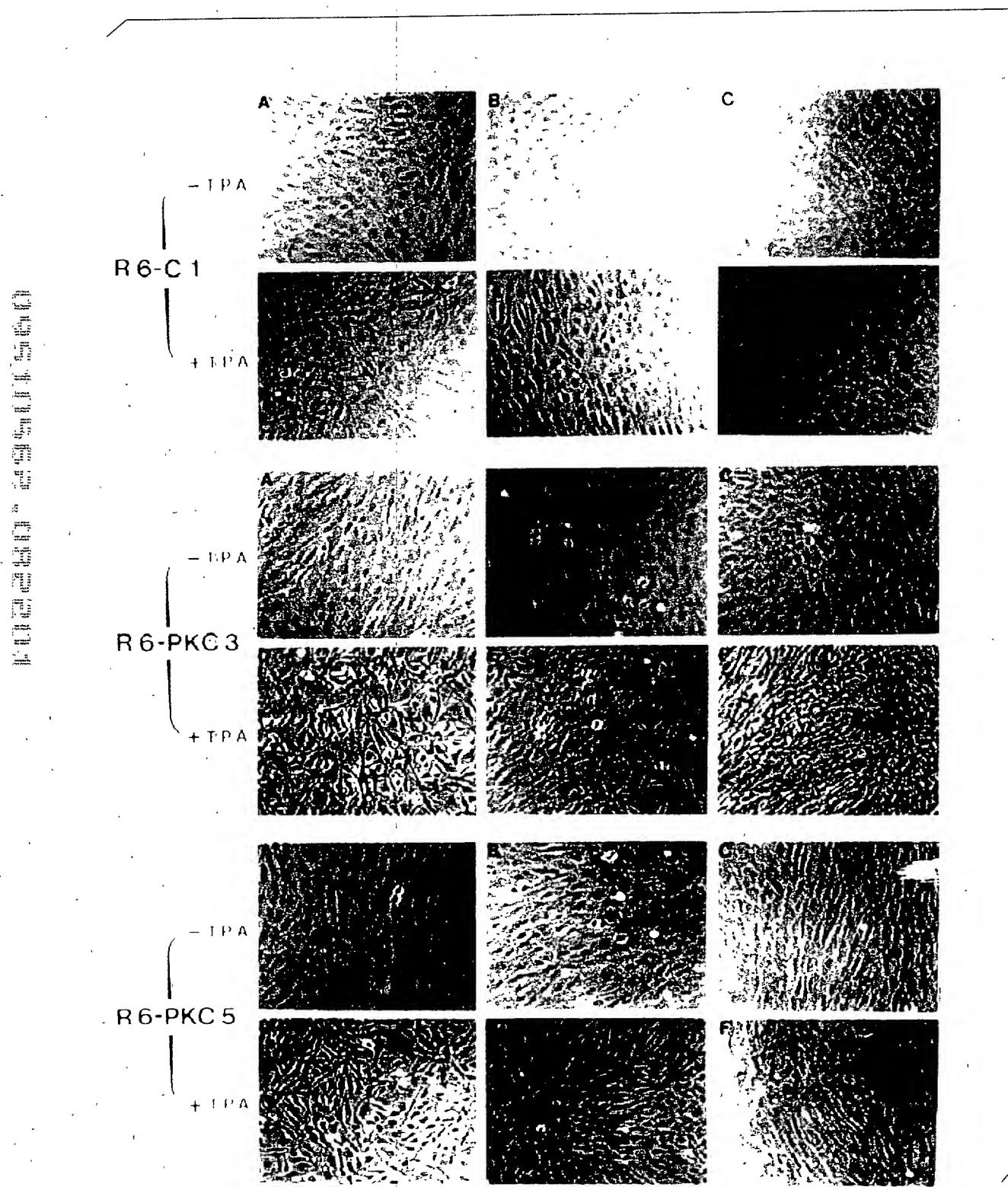
R6-PKC6

- 9.5  
- 7.5  
- 4.4

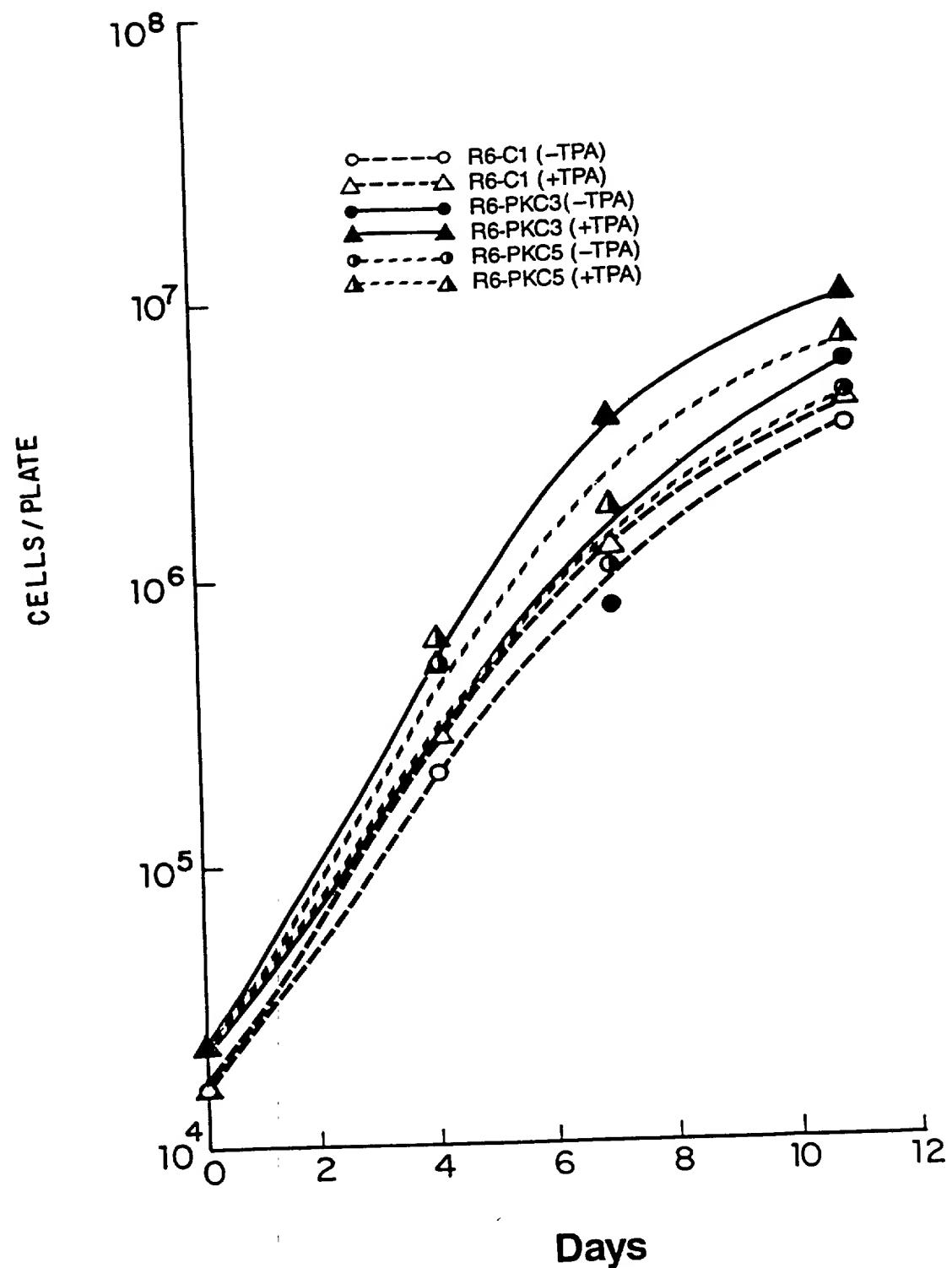
- 2.4

- 1.4

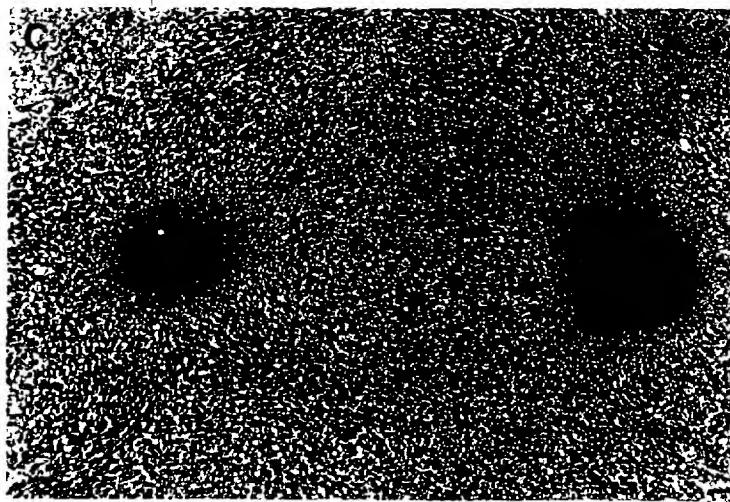
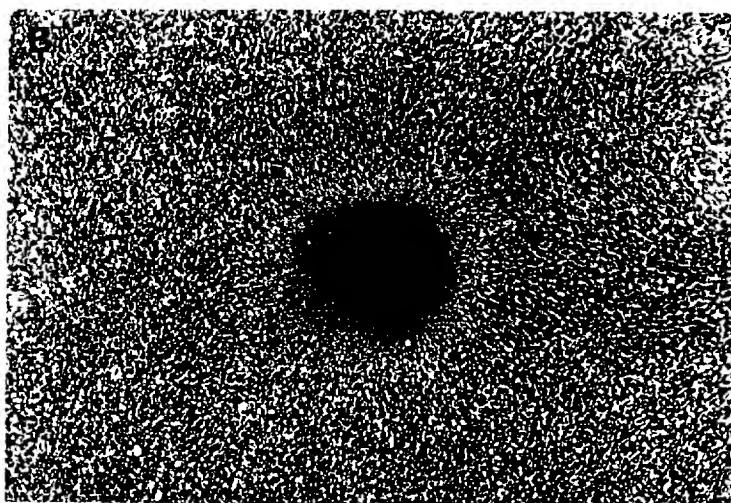
**FIG. 4**



*FIG. 5.*



**FIG. 6**



**FIG. 7**

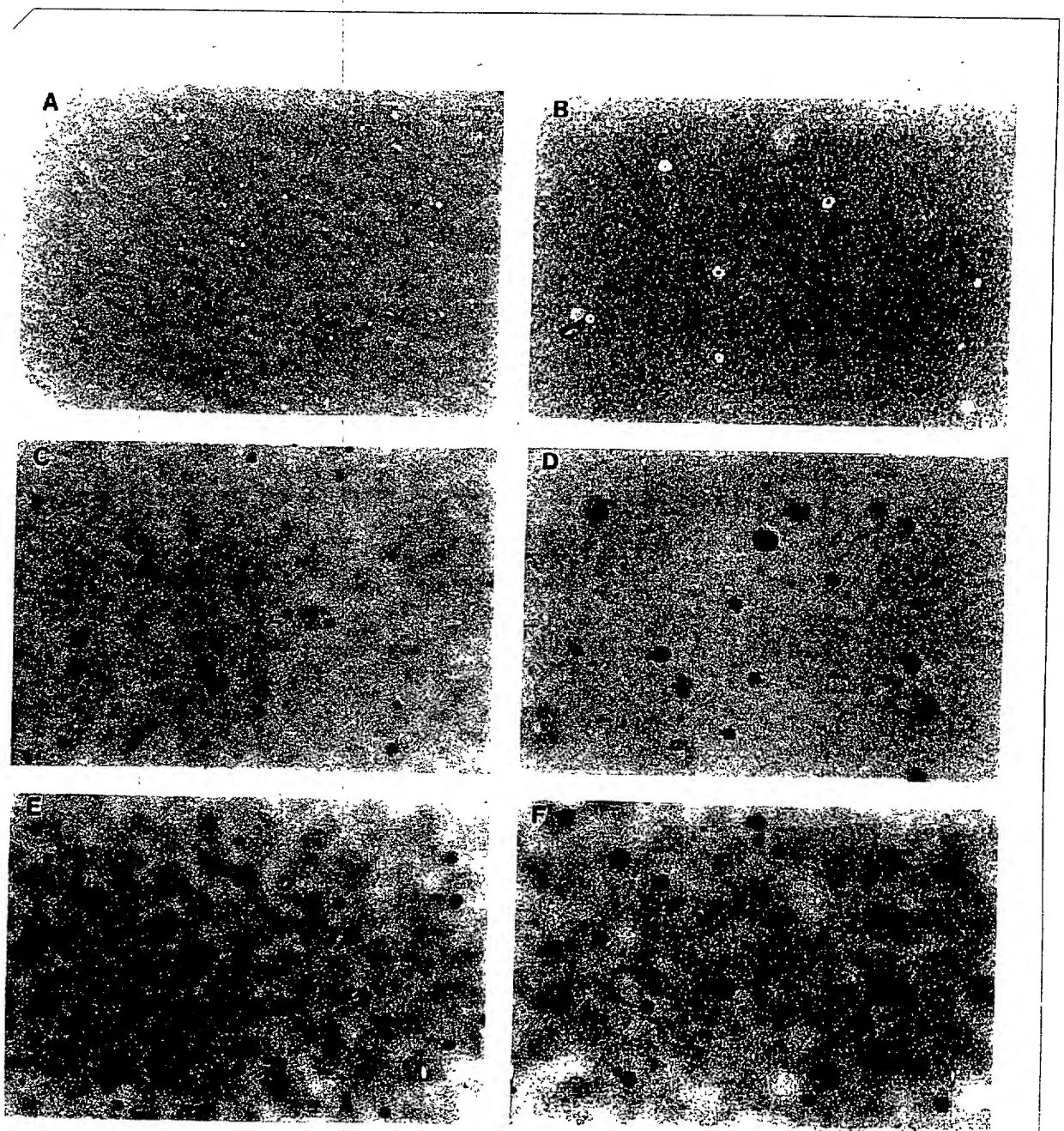


Figure 7. Electron micrographs of the same field at different magnifications.